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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/700,012	11/03/2003	Detlef John	JOHN	3679
20151	7590	02/21/2006	EXAMINER	
HENRY M FEIEREISEN, LLC 350 FIFTH AVENUE SUITE 4714 NEW YORK, NY 10118			MUROMOTO JR, ROBERT H	
			ART UNIT	PAPER NUMBER
			3765	

DATE MAILED: 02/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/700,012

Applicant(s)

JOHN ET AL.

Examiner

Robert H. Muromoto, Jr.

Art Unit

3765

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 November 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Pall '650.

Pall discloses a method of forming perforate metal sheets useful in filter applications. The invention contemplates the formation of a rigid perforate metallic sheet by preparing in a weaving operation a plain or square weave mesh using metallic filaments. The wire mesh should be stabilized as to the relative positions of the metallic filaments. In the case of a simple square weave in which both the warp and weft filaments are equally spaced, the initial stabilization of the weave pattern can be effected by integrating the interwoven filaments at the crossover points by sintering (col. 4, lines 21-32).

The limitation regarding the diameter of the weft with respect to the spacing between the neighboring warp yarns is inherent to Pall. In a plain weave, with a 200 x 1500 square weave mesh, using .0029 inch warp filaments and .0013 inch diameter

Art Unit: 3765

weft filaments is disclosed in Pall on column 5, line 65. The clear spacing is smaller than the weft diameter as recited in claim 1. The key is the term "clear spacing". In looking at a woven fabric as tightly woven as the fabrics of both the invention and the Pall reference, there is only a small amount of "clear space" between neighboring warp yarns because the space taken up by the criss-crossing weft yarns and the space taken up by the warp yarn can not be considered "clear space". To determine the "clear space" in Pall, the examiner has broken the fabric into a cell length (warp center line to warp center line). If a fabric has 200 warps per inch, then the cell length from warp center line to warp center line is $1\text{ inch}/200 = .005\text{ inch}$. From this cell length subtract the diameter of one full warp (.0029 inches). $.005\text{ inches} - .0029\text{ inches} = .0021\text{ inches}$. This length (.0021 inches) is the distance between neighboring warps. This distance is not clear space because inside this space there is the presence of the criss-crossing weft yarns. So to determine the "clear space" one must subtract the distance taken up by the weft yarns. To make calculation simpler the examiner will subtract the diameter of the weft yarn (.0013 inches), but it should be known that the actual distance taken up by the weft yarn would actually be larger because of the angle of the weft yarns. The approximated "clear space" is $(.0021\text{ inches} - .0013\text{ inches} = .0008\text{ inches})$.0008 inches. This approximated "clear space" is smaller than the weft diameter (.0013 inches) as recited by claim 1. The actual "clear space" would be even smaller than the approximated clear space because the actual space taken up by the weft yarn crossover would be larger than the diameter of the weft yarn as described above.

Art Unit: 3765

With regards to the "using a cold-forming technique", the material in Pall is said to be rolled as well as sintered. Rolling does not use heat and is therefore equivalent to a "cold-forming technique". Additionally, this limitation is a product-by-process limitation. The MPEP states, "the lack of physical description in a product-by-process claim makes determination of the patentability of the claim more difficult, since in spite of the fact that the claim may recite only process limitations, it is the patentability of the product claimed and not of the recited process steps which must be established. We are therefore of the opinion that when the prior art discloses a product which reasonably appears to be **either identical with or only slightly different than a product claimed in a product-by-process claim, a rejection based alternatively on either section 102 or section 103 of the statute is eminently fair and acceptable**. As a practical matter, the Patent Office is not equipped to manufacture products by the myriad of processes put before it and then obtain prior art products and make physical comparisons therewith." In re Brown, 459 F.2d 531, 535, 173 USPQ 685, 688 (CCPA 1972).

Pall discloses all of the limitations of the claimed invention, and therefore clearly Pall has been shown to be "either identical or only slightly different" as required by the MPEP.

Once the examiner provides a rationale tending to show that the claimed product appears to be the same or similar to that of the prior art, although produced by a different process, the burden shifts to applicant to come forward

Art Unit: 3765

with evidence establishing an unobvious difference between the claimed product and the prior art product. In re Marosi, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir. 1983).

The limitation regarding the constriction of the weft filament in crossing regions of the warp and weft is also inherent to Pall or any fabric. The structure of any woven has some tension between the warp layers and therefore is always exerting some compression or constriction on the weft yarns.

Additionally, the fabric in Pall is subjected to further pressure application processes that reduce the thickness of the fabric by 5 to 65%. This pressure equates to a constriction force on the weft filaments as well, as recited in claims 2 and 4.

The embodiment in example A, discloses a filament having a .0013in diameter. Upon conversion to millimeters, .0013in = .03302 mm. .03302mm is well within the ranges recited in claims 3, 6 and 7.

Example A, also discloses a 325 X 325 mesh weave. 325 wires per inch is clearly within the range recited in claim 8.

Pall also discloses an embodiment that would be extremely thin, where a 200 x 1500 wire mesh is produced from warp wires .0029 in and weft wires .0013 in (col. 5, lines 70-750). The 1500 wires per inch corresponding the weft, this weft density clearly within the range recited in claim 9. And the diameters disclosed clearly providing the limitations recited in claim 5.

Response to Arguments

Art Unit: 3765

Applicant's arguments with respect to claims 1-9 have been considered but are not persuasive.

Applicant's amendment reverses the range of the weft yarn diameter to be considered by the Examiner. However, the previously cited reference Pall, inherently discloses the recited weft diameter range as it is shown through calculations above that the "clear space" between neighboring warp yarns is inherently less than the diameter of the weft yarn for the 200 X 1500 mesh embodiment disclosed by Pall.

The addition of the use of a cold forming technique is a product-by-process limitation and since the claimed invention and the Pall disclosure have been shown to be nearly identical the burden of proof has been shifted to applicant to show a non-obvious difference between the two materials as a result of the claimed process step.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

Art Unit: 3765


extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert H. Muromoto, Jr. whose telephone number is 571-272-4991. The examiner can normally be reached on 8-530, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Calvert can be reached on 703-305-1025. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Bhm
2/14/2006


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